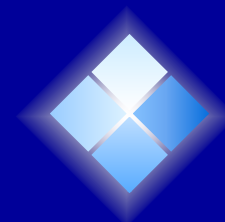




**Turnkey Development ■ Value-Based Consulting ■ Structured Finance ■ Asset Management**

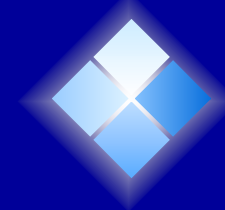
# **Manzanita Wind Energy Feasibility Study**



**Prepared for the  
Manzanita Band of the Kumeyaay Nation  
November 19, 2003**



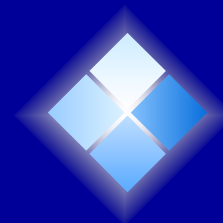
# Study Overview



- **Manzanita is managing the Feasibility Study**
- **SeaWest Consulting, LLC is performing the technical scope of work**
- **A division of SeaWest WindPower, most established wind energy consulting firm in the US**



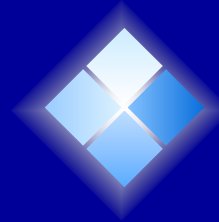
# Purpose and Scope



**Provide a technical and economic evaluation for developing a commercial wind energy project on Manzanita land.**



# Milestone 1



- Document site conditions
- Land ownership, topography
- General suitability for a wind farm.

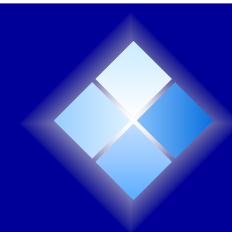




# Milestone 2

## Wind Resource Assessment

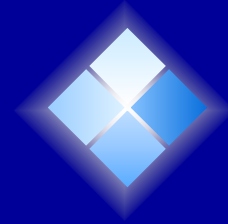
- on-site wind data collection
- correlation with long-term off-site wind data sources
- estimation of average wind speeds
- estimate of average annual energy produced







# Milestone 3

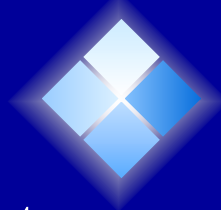


- Review of permitting requirements
- Costs and timing to secure permits
- Results in site selection
- Provides the basis for defining the specific site area and project definition.





# Milestone 4



## Transmission/Interconnection

- Identify likely interconnection scheme
- Estimate available capacity and timing
- Preliminary costs for interconnection





# Milestone 5

## Construction Cost Estimate

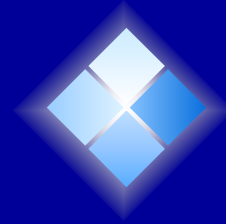
- Preliminary costs based on assumed conditions
- Assumes wind turbine type
- Assumes realistic balance of plant improvements







# Milestone 6



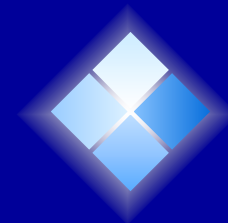
## Technology Evaluation

- Evaluate wind turbine models
- Suitable to the wind resource and site conditions
- Economic comparison (market conditions)
- Select primary balance of plant equipment





# Milestone 7



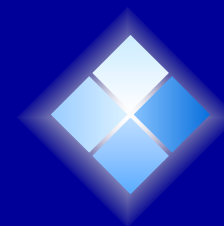
## Prepare Economic Model

- Financial assumptions
- Estimate income & operating costs
- Forecast economic performance
- Evaluate economic feasibility





# Milestone 8



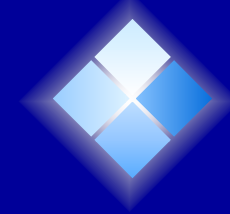
## Tribal Training

- Prepare information and education package
- Social and Economic benefits
- Hold seminar/meeting with Manzanita





# Milestone 9



## Develop Business Plan

- Financial evaluation
- Ownership structure
- Present Financial Model to business council
- Prepare Report
- Present to Manzanita





# Timetable

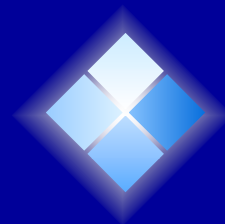
- Feasibility Study initiated Dec. 02
- Draft Feasibility Report Nov. 24, 03
- Manzanita Review by Dec. 15, 03
- Finalize Report by Dec. 30, 03
- Training/Tribal Professional Development materials by Jan. 15, 04
- Business Plan by Jan. 28, 2004







# Opportunities for Manzanita



## Landowner

- Wind Energy Lease income over 25 years

## Developer

- Pre-Development Asset

## Tribal Capacity

## Other Roles

- To be determined





# Tribal Capacity Building

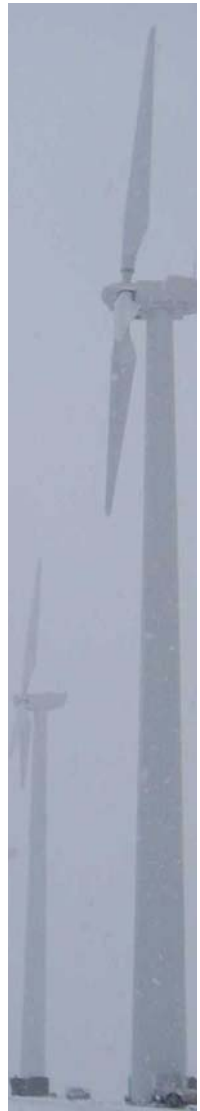
- Skilled employment
- Education on Renewable Technology
- Revenue sources
- Income diversification
- Compatibility with existing and future uses



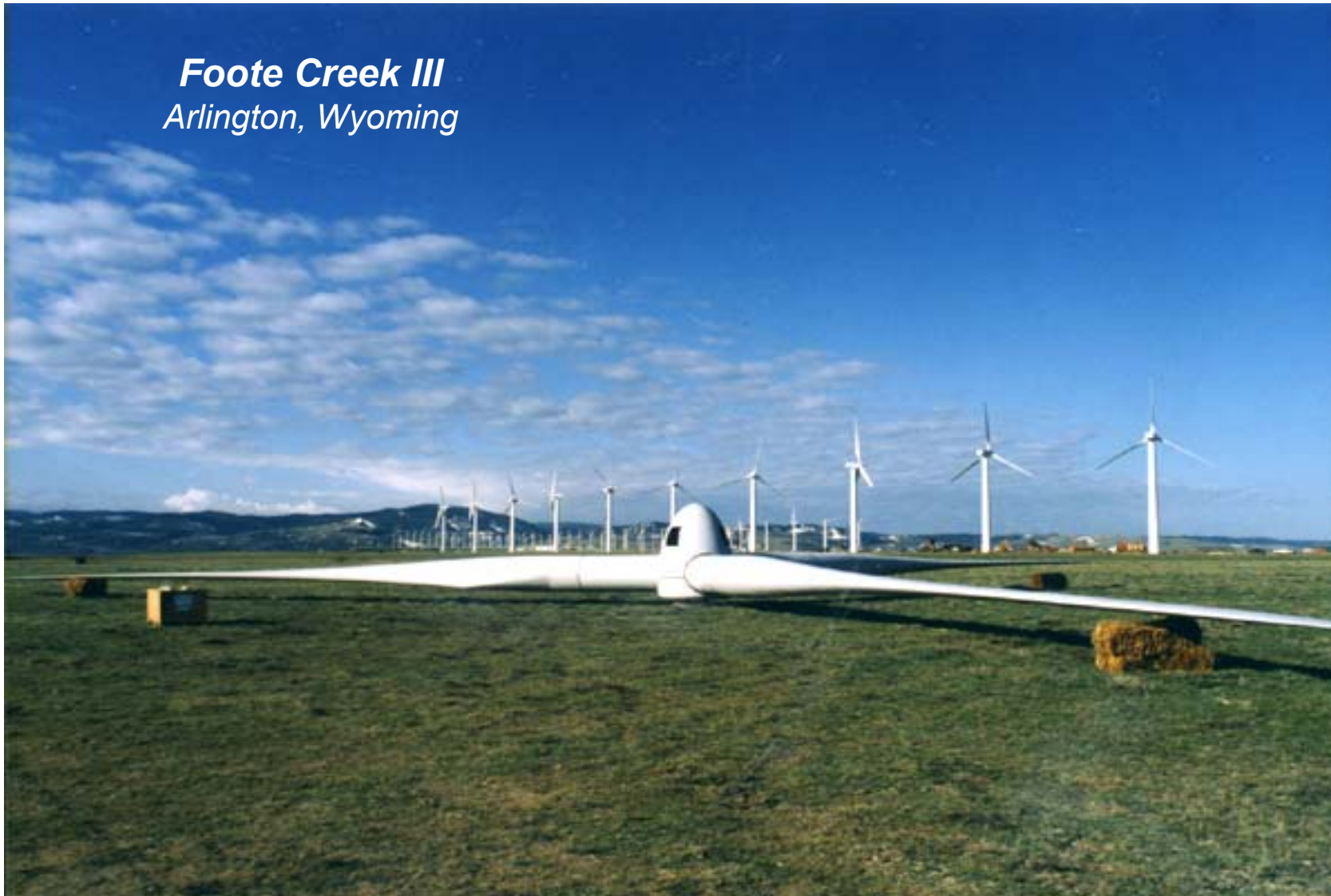


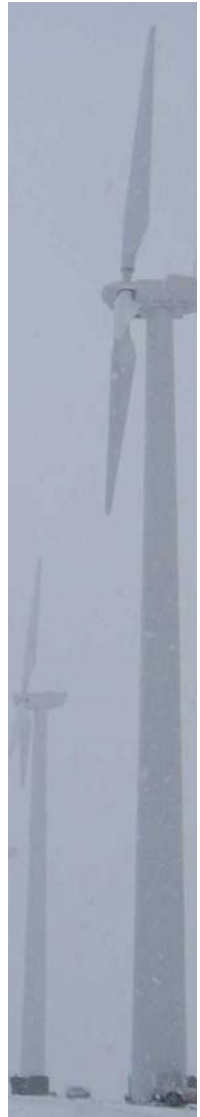






## ***Foote Creek III*** ***Arlington, Wyoming***









# Questions & Answers?

